

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the above-identified application.

Listing of Claims

1. (Currently amended) A computer implemented method ~~of customizing a product~~ comprising:

~~providing a set of one or more customizable product classes;~~

receiving a template comprising identifiers and operators, wherein:

the identifiers identify one or more component products from a set of
component products, and

the identified component products comprise a first component product, and
generating a customizable class rule based on the identifiers and on relationships
associated with the operators;

~~receiving a request to designate a customizable product class from the set of
customizable product classes as a customizable product instance;~~

~~receiving, during a runtime session, a request to associate a first component product
from a set of component products with the customizable product instance;
and~~

wherein the customizable class rule indicates at least one configuration restriction
for at least one customizable product, determining, during the runtime
session, whether to associate the first component product with the
customizable product instance based on the customizable class rule.

2. (Currently amended) The computer implemented method of ~~claim 1 further~~ claim 68, comprising:

determining not to associate the first component product with the customizable product ~~instance~~ if the customizable class rule limits association of the first component product with the customizable product ~~instance~~.

3. (Currently amended) The computer implemented method of ~~claim 1 further~~ claim 68, comprising:

determining to associate the first component product with the customizable product ~~instance~~ if the customizable class rule allows association of the first component product with the customizable product ~~instance~~;

associating the first component product with the customizable product ~~instance~~;

determining to associate a second component product with the customizable product ~~instance~~ upon the associating the first component product if the customizable class rule requires association of the first component product with the second component product; and

associating the second component product with the customizable product ~~instance~~.

4. (Canceled)

5. (Currently amended) The computer implemented method of claim 1, comprising:
~~wherein the providing the set of component products comprises~~

providing a user interface for each component product in the set of component products, wherein the user interface comprises a theme user interface, a control user interface, and a group user interface.

6. (Canceled)

7. (Currently amended) The computer implemented method of ~~claim 1~~ claim 68, wherein two or more component products from the set of component products are associated with the customizable product ~~instance~~.

8. (Currently amended) A machine-readable medium that provides instructions, ~~which when executed~~ recorded on a computer-readable storage medium and executable by a set of one or more processors to ~~[[,]]~~ cause the set of one or more processors to perform operations ~~of customizing a product~~ comprising:

~~providing a set of one or more customizable product classes;~~

receiving a template comprising identifiers and operators, wherein:

the identifiers identify one or more component products from a set of component products, and

the identified component products comprise a first component product, and generating a customizable class rule based on the identifiers and on relationships associated with the operators;

~~receiving, during a runtime session, a request to designate a customizable product class from the set of customizable product classes as a customizable product instance;~~

~~receiving a request to associate a first component product from a set of component products with the customizable product instance; and~~

wherein the customizable class rule indicates at least one configuration restriction for at least one customizable product, determining, during a runtime session, whether to associate the first component product with the customizable product instance based on the customizable class rule.

9. (Currently amended) The machine-readable medium of ~~claim 8~~ claim 69, the operations ~~further~~ comprising:

determining not to associate the first component product with the customizable product ~~instance~~ if the customizable class rule limits association of the first component product with the customizable product ~~instance~~.

10. (Currently amended) The machine-readable medium of ~~claim 8~~ claim 69, the operations ~~further~~ comprising:

determining to associate the first component product with the customizable product ~~instance~~ if the customizable class rule allows association of the first component product with the customizable product ~~instance~~;

associating the first component product with the customizable product ~~instance~~;

determining to associate a second component product to the customizable product ~~instance~~ upon the associating the first component product if the customizable class rule requires associating the first component product with the second component product; and

associating the second component product with the customizable product ~~instance~~.

11. (Canceled)

12. (Currently amended) The machine-readable medium of ~~claim 8~~ claim 69, wherein the providing the set of component products comprises providing a user interface for each component product in the set of component products.

13. (Currently amended) The machine-readable medium of claim 12, wherein the user interface comprises a theme user interface, a control user interface, and a group user interface.

14. (Currently amended) The machine-readable medium of ~~claim 8~~ claim 69, wherein two or more component products from the set of component products are associated with the customizable product ~~instance~~.

15. (Currently amended) A computer implemented method ~~of customizing a product~~ comprising:

receiving a template comprising identifiers and operators, wherein:

the identifiers identify component products from a set of component products, and

generating a set of customizable class rules based on the identifiers and on relationships associated with the operators, wherein the set of customizable class rules [[that]] define at least one relationship among two or more of the identified component products;

~~designating a customizable product class from a set of customizable product classes~~
as a customizable product ~~instance~~;

~~selecting, during a runtime session, a first component product from a set of component products to form a customizable product; and~~

~~associating, during the runtime session, the a~~ first component product with the customizable product ~~instance~~ based on a customizable class rule, among the set of customizable class rules, that applies to the customizable product ~~instance~~.

16. (Currently amended) The computer implemented method of claim 15, ~~further~~ comprising selecting a second component product to add to the customizable product, wherein the selecting is based on the first component product and at least one of the customizable class rules.

17. (Currently amended) The computer implemented method of claim 15, ~~further~~ comprising selecting two or more component products associated with the customizable product ~~class~~.

18. (Currently amended) The computer implemented method of claim 15, ~~further~~ comprising associating a second component product with the customizable product ~~instance~~ upon the selecting based on at least one of the customizable class rules.

19-23. (Canceled)

24. (Currently amended) A machine-readable medium that provides instructions, ~~which when executed~~ recorded on a computer-readable storage medium and executable by a set of one or more processors to ~~[[,]]~~ cause the set of one or more processors to perform operations of ~~customizing a product~~ comprising:

receiving a template comprising identifiers and operators, wherein:

the identifiers identify component products from a set of component products, and

generating a set of customizable class rules based on the identifiers and on relationships associated with the operators, wherein the set of customizable class rules ~~[[that]]~~ define at least one relationship among two or more of the identified component products;

designating ~~a customizable product class from a set of customizable product classes~~ as a customizable product ~~instance~~;

~~selecting, during a runtime session, a first component product from a set of component products to form a customizable product;~~ and

associating, ~~during the runtime session, the~~ a first component product with the customizable product ~~instance~~ based on a customizable class rule, among the set of customizable class rules, that applies to the customizable product ~~instance~~.

25. (Currently amended) The machine-readable medium of claim 24, wherein the operations ~~further~~ comprise selecting from a set of alternative component products to add to the customizable product, wherein the selecting is based upon the first component product.

26. (Currently amended) The machine-readable medium of claim 24, wherein the customizable product rules comprise pricing information and allow for discount pricing, and the operations ~~further~~ comprise selecting two or more component products associated with the customizable product ~~class~~.

27. **(Currently amended)** The machine-readable medium of claim 24, wherein the operations ~~further~~ comprise associating a second component product with the customizable product ~~instance~~ upon the selecting based on at least one of the customizable class rules.

28-30. (Canceled)

31. **(Currently amended)** The machine-readable medium of claim 27, wherein the customizable product rule comprises component product information to guide a consumer in a selection of the customizable product, and the component product is displayed in a user interface.

32. (Canceled)

33. **(Currently amended)** An apparatus ~~to customize a product~~ comprising:

a memory to store a set of one or more customizable product classes; and

a processor, coupled to the memory and configured to:

identify a set of component products,

receive a template comprising identifiers and operators, wherein:

the identifiers identify one or more component products from a set of component products, and

the identified component products comprise a first component product, and

generate a customizable class rule based on the identifiers and on relationships associated with the operators,

~~receive a request to designate a customizable product class from the set of customizable product classes as a customizable product instance,~~

~~receive, during a runtime session, a request to associate a first component product from a set of component products with the customizable product instance, and~~

wherein the customizable class rule indicates at least one configuration restriction for at least one customizable product. determine, during the runtime session, whether to associate the first component product with the customizable product instance based on the customizable class rule.

34. (Currently amended) The apparatus of ~~claim 33~~ claim 70, wherein the processor is ~~further~~ configured to determine not to associate the first component product with the customizable product ~~instance~~ if the customizable class rule limits association of the first component product with the customizable product ~~instance~~.

35. (Currently amended) The apparatus of ~~claim 33~~ claim 70, wherein the processor is ~~further~~ configured to:

determine to associate the first component product with the customizable product ~~instance~~ if the customizable class rule allows association of the first component product with the customizable product ~~instance~~; and
associate the first component product with the customizable product ~~instance~~.

36-38. (Canceled)

39. (Currently amended) The apparatus of ~~claim 33~~ claim 70, wherein two or more component products from the set of component products are associated with the customizable product ~~instance~~.

40. (Canceled)

41. (Currently amended) The computer implemented method of claim 1, ~~further~~ comprising:

converting the customizable class rule from a natural language format into a low-level computer language.

42. (Previously presented) The computer implemented method of claim 1, wherein the customizable class rule comprises an expression relating to an attribute of a component product.

43. (Previously presented) The computer implemented method of claim 1, wherein the customizable class rule defines at least one relationship among the customizable product classes.

44. (Canceled)

45. (**Currently amended**) The machine-readable medium of claim 8, the operations **further** comprising:

converting the customizable class rule from a natural language format into a low-level computer language.

46. (Previously presented) The machine-readable medium of claim 8, wherein the customizable class rule comprises an expression relating to an attribute of a component product.

47. (Previously presented) The machine-readable medium of claim 8, wherein the customizable class rule defines at least one relationship among the customizable product classes.

48. (**Currently amended**) The computer implemented method of claim 15, **further** comprising:

converting the customizable class rules from a natural language format into a low-level computer language.

49-50. (Canceled)

51. (Canceled)

52-54. (Canceled)

55. (Currently amended) The computer implemented method of ~~claim 1 further~~ claim 68, comprising:

generating, in response to the request to associate, a recommendation message based on the customized class rule.

56. (Currently amended) The computer implemented method of claim 55, ~~further~~ comprising:

transmitting the recommendation message to a user, wherein the request to associate is received from the user.

57. (Currently amended) The computer implemented method of claim 1, wherein the ~~identifiers comprise customizable class rule comprises;~~ a user-specified text identifier, and the operators comprise a text operator that applies to the user-specified text identifier.

58. (Canceled)

59. (Previously presented) The computer implemented method of claim 57, wherein the text operator comprises at least one of: a requirement operator, a conditional operator, a conjunction operator, and an exclusion operator.

60. (Previously presented) The computer implemented method of claim 57, wherein the text operator comprises at least one of: an addition operator, a subtraction operator, a multiplication operator, and an absolute value operator.

61. (Previously presented) The computer implemented method of claim 57, wherein the user-specified text identifier refers to an account status and the text operator comprises an equivalence operator.

62. (Previously presented) The computer implemented method of claim 57, wherein the user-specified text identifier refers to at least one of: a product class, a cardinal number, a customer evaluation, a transaction upgrade, a customer attribute, or a geographic location.

63. (Currently amended) The machine-readable medium of ~~claim 8~~ claim 69, the operations **further** comprising:

generating, in response to the request to associate, a recommendation message based on the customized class rule, wherein the request to associate is received from a user; and
transmitting the recommendation message to the user.

64. (Currently amended) The machine-readable medium of claim 8, wherein the ~~identifiers comprise customizable class rule comprises~~ a user-specified text identifier, ~~wherein the user-specified text identifier refers to input received during the runtime session~~, and the operators comprise a text operator that applies to the user-specified text identifier.

65. (Currently amended) The computer implemented method of claim 15, wherein the ~~set of customizable class rules comprises~~ identifiers comprise a user-specified text identifier, ~~wherein the user-specified text identifier refers to input received during the runtime session~~, and the operators comprise a text operator that applies to the user-specified text identifier.

66. (Currently amended) The machine-readable medium of claim 24, wherein the ~~set of customizable class rules comprises~~ identifiers comprise a user-specified text identifier, ~~wherein the user-specified text identifier refers to input received during the runtime session~~, and the operators comprise a text operator that applies to the user-specified text identifier.

67. (Currently amended) The apparatus of claim 33, wherein the identifiers comprise customizable class rules comprises a user-specified text identifier, ~~wherein the user-specified text identifier refers to input received during the runtime session~~, and the operators comprise a text operator that applies to the user-specified text identifier.

68. (New) The computer implemented method of claim 1, comprising:
receiving, during a runtime session, a request to designate a customizable product;
receiving, during the runtime session, a request to associate the first component product
with the customizable product; and
determining whether to associate the first component product with the customizable
product based on the customizable class rule.
69. (New) The machine-readable medium of claim 8, the operations comprising:
receiving, during a runtime session, a request to designate a customizable product;
receiving, during the runtime session, a request to associate the first component product
with the customizable product; and
determining whether to associate the first component product with the customizable
product based on the customizable class rule.
70. (New) The apparatus of claim 33, wherein the processor is configured to:
receive, during a runtime session, a request to designate a customizable product;
receive, during the runtime session, a request to associate the first component product
with the customizable product; and
determine whether to associate the first component product with the customizable
product based on the customizable class rule.
71. (New) The computer implemented method of claim 1, comprising:
receiving a list of values from a configuration expert for use in a batch rule; and
generating the template using the list of values by filling in blanks from a blank template
with the values in the received list of values.